

Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (currently amended): An energy dense energetic material comprising:
a layer of material comprising one or more metals substantially not in oxide form, ~~wherein~~ comprising one or more compositions selected from the group consisting of ~~wherein said compositions comprise non-adducted~~ metal hydrides and metals with interstitial hydrogen; and
a layer of material comprising one or more metals substantially in oxide form; and
wherein said layers in combination are energetic, reduce diffusion flux, maximize the liberation of a gaseous reaction product, and have a thickness of less than or equal to approximately 10 nm.
2. (canceled)
3. (original): The material of claim 1 comprising a plurality of layers of material comprising one or more metals substantially not in oxide form.
4. (original): The material of claim 3 comprising a plurality of layers of material comprising one or more metals substantially in oxide form.
5. (original): The material of claim 4 wherein each layer of material comprising one or more metals substantially in oxide form is adjacent to at least one layer of material comprising one or more metals substantially not in oxide form.

6. (original): The material of claim 1 comprising a plurality of layers of material comprising one or more metals substantially in oxide form.

7. (original): The material of claim 1 wherein the layer of material comprising one or more metals substantially not in oxide form comprises one or more metals selected from the group consisting of Al, Ti, Li, and Mg.

8. (original): The material of claim 1 wherein the layer of material comprising one or more metals substantially in oxide form comprises one or more metals selected from the group consisting of W, P, Fe, and Mn.

9. (canceled)

10. (currently amended): The material of claim 1 wherein the layer of material comprising one or more metals substantially not in oxide form comprises one or more ~~non-~~
~~adducted~~ metal hydrides.

11. (previously presented): The material of claim 1 wherein the layer of material comprising one or more metals substantially not in oxide form comprises one or more metals with interstitial hydrogen.

12. (original): The material of claim 1 fabricated by plasma enhanced chemical vapor deposition.

13. (original): The material of claim 1 adhered to a substrate selected from the group consisting of polymers, ceramics, glass, metals, and curved surfaces.

14. (previously presented): The material of claim 1 wherein said layers form an energetic material selected from the group consisting of TNT, RDX, Tritonal, and AFX-757.

15. (original): The material of claim 1 wherein said material forms energetic fragments upon detonation.

16. (original): The material of claim 15 wherein said energetic fragments comprise a material selected from the group consisting of elemental Mn and elemental P.

17. (original): The material of claim 1 wherein said material is useful in an anti-tamper device.

18. (currently amended): An energy dense energetic material comprising:
a first layer of material, comprising one or more compositions selected from the group consisting of ~~non-adducted~~ metal hydrides and metals with interstitial hydrogen;
and
a second layer of material, comprising one or more metals substantially in oxide form; and
wherein said first layer is disposed next to at least one said second layer and said first and second layers in combination are energetic and have a thickness of less than or equal to approximately 10 nm.

19. (currently amended): The material of claim 18 wherein said first layer of material comprises one or more ~~non-adducted~~ metal hydrides.

20. (original): The material of claim 18 wherein said first layer of material comprises one or more metals with interstitial hydrogen.

21. (currently amended): A method of making an energy dense energetic material, the method comprising the steps of:

depositing a layer of material comprising one or more metals substantially not in oxide form, wherein one or more compositions selected from the group consisting of ~~non-~~~~adducted~~-metal hydrides and metals with interstitial hydrogen; and

depositing an adjacent layer of material comprising one or more metals substantially in oxide form; and

wherein said layers in combination are energetic and have a thickness of less than or equal to approximately 10 nm.